

## Consulting The Farmer About Fertilizing Practices

REPRESENTATIVE SOUTHERN FARMERS SELECTED BY COUNTY AGENTS, TELL WHAT THEY ARE DOING THROUGH THE USE OF FERTILIZERS—VALUABLE DATA OF PRACTICAL SORT

By J. N. Harper, Director, Soil Improvement Committee, Atlanta, Ga.

What do the farmers themselves say about the use of fertilizers? Certainly no one is more qualified to speak as to their value than they. This question has been asked of a great many farmers in the Southeast, and their answers are most enlightening.

The writer obtained through the County Demonstration Agents the names of more than a thousand of the most representative farmers living in the states of North Carolina, South Carolina and Georgia. To these were sent a questionnaire asking for information as to the yields obtained from cotton and corn, and the formula and amount of fertilizer used. They were also asked to give the soil type. Several hundred answers were received and these have been carefully classified according to crop yields.

Results on Cotton Yields.

Grouping the reports of the farmers from the Coastal Plain Region, the following results were shown:

Average Yield Per Acre	Average Amt. Of Fertilizer Used Per Acre
166 Lbs. . . . .	300 Lbs.
250 Lbs. . . . .	375 Lbs.
375 Lbs. . . . .	518 Lbs.
500 Lbs. . . . .	645 Lbs.
625 Lbs. . . . .	780 Lbs.
750 Lbs. . . . .	840 Lbs.
1,000 Lbs. . . . .	950 Lbs.

The average formula of the fertilizer used was 8.6 per cent phosphoric acid, 2.1 per cent nitrogen, and 2.1 per cent potash.

Grouping the reports of the farmers of the Piedmont Region according to the yields obtained, the following facts are shown:

Average Yield Per Acre	Average Amt. Of Fertilizer Used Per Acre
320 Lbs. . . . .	200 to 300 Lbs.
385 Lbs. . . . .	400 to 500 Lbs.
438 Lbs. . . . .	600 to 700 Lbs.
540 Lbs. . . . .	800 Lbs.

The fertilizer formula for cotton based on the sandy clay loams of this region averaged 8.6 per cent phosphoric acid, 2.6 per cent nitrogen, and 2.1 per cent potash.

Quite a number of farmers in both regions reported the use of nitrate of soda as a side application in addition to the fertilizer. The quantity used ranged from 40 to 100 lbs. per acre.

### Results on Corn Yields.

The average yield of corn from all

those reporting from the Coastal Plains Region was 36.3 bushels per acre and the average amount of fertilizer used was 444 pounds.

The average formula of this fertilizer was 8.4 per cent phosphoric acid, 3.1 per cent nitrogen, and 2.6 per cent potash.

After classifying the reports according to yields, the following results were obtained:

Average Yield Of Corn Per Acre	Average Amt. Of Fertilizer Used Per Acre
20 Bushels . . . . .	310 Lbs.
25 Bushels . . . . .	355 Lbs.
30 Bushels . . . . .	404 Lbs.
35 Bushels . . . . .	450 Lbs.
40 Bushels . . . . .	469 Lbs.
45 Bushels . . . . .	566 Lbs.

The reports from the Piedmont Region showed the average yield from all reporting as 33.2 bushels of corn per acre with the average amount of fertilizer 330 pounds.

The formula averaged 8.7 per cent phosphoric acid, 2.5 per cent nitrogen, and 1.9 per cent potash. The formula reported for both cotton and corn was given as used prior to the World War.

Classifying the reports into groups according to yields, the following results are shown:

Average Yield Of Corn Per Acre	Average Amt. Of Fertilizer Used Per Acre
15 Bushels . . . . .	183 Lbs.
25 Bushels . . . . .	281 Lbs.
30 Bushels . . . . .	350 Lbs.
45 Bushels . . . . .	500 Lbs.

The above results from the farmers themselves strikingly coincide with the results obtained at the southern experiment stations, and these figures show that as the use of fertilizers is increased, so is agricultural production increased.

Many thousands of acres of land in the Coastal Plains of the South, when first cleared, did not produce more than 10 bushels of corn per acre. Today, they are producing from 40 to 80 bushels, by the liberal use of fertilizers.

Crop yields must be greatly increased to meet the constantly growing demand for foodstuffs and other agricultural products. The most economical way to produce crops is by increasing the acre yield, and there are but two ways of doing this—by better cultural methods and by the more liberal use of plant food.

### COMMERCIAL FERTILIZERS.

Wisely Used They Are Profitable, Otherwise It Is Money Wasted.

The answer to the question as to whether we should use commercial fertilizers wholly depends upon the answer to another question: Do they pay? That they do pay and pay well when rightly used is abundantly proved by experiment station evidence. On the other hand, there is also much evidence that Southern farmers every year waste millions of dollars through the unwise use of commercial fertilizers.

In fact, the great problem is to get the most out of our soil and crop needs. Soils very greatly in their composition and hence in their fertilizer requirement, and different crops likewise require plant foods in varying proportions. Here let us lay down some basic principles that will help guide us in buying and using fertilizers.

### WHERE NITROGEN IS NEEDED

Roughly, the nearer we are to the Gulf and Atlantic coasts, the greater the need for nitrogen. In fact, over practically all the sandy loam soils of the Atlantic and Gulf Coastal plains, nitrate is the great plant need. On such lands, application of nitrogen for such crops as cotton, corn and oats will usually pay well. Fifteen pounds of nitrogen, per acre, or the equivalent of that found in 50 pounds of a 10-2-2 fertilizer, 250 pounds of cotton-seed meal, or 100 pounds of nitrate of soda, will usually give excellent results on any of the average thin lands of this section, and there is evidence that considerably heavier applications of nitrogen may be profitably made. Farther inland, on the Piedmont, mountain or other clay or loam soils, the need for nitrogen is not as a rule so acute, though there are many areas where the use of commercial nitrogen is highly profitable. This is particularly

true of thin lands and those that have long been in cultivation.

### WHERE PHOSPHORUS IS NEEDED

Next to nitrogen, phosphorus or phosphoric acid is the element most needed by Southern soils. In fact it is needed practically everywhere from Virginia to Texas, except on the lime soils of the Mississippi Delta regions and the Black Belt areas of Alabama, Mississippi and Texas. It is particularly valuable on lands that tend to make too much stalk or leaf growth and too little fruit. Forty to 50 pounds per acre, or the equivalent of 250 to 300 pounds of 16 per cent acid phosphate, is usually the most profitable amount to use.

### WHERE POTASH IS NEEDED

We believe that Southern farmers have wasted more money on potash than on any other plant food element. Draw a line, roughly, from about Mobile, Ala., northeastward through Macon, Ga., Columbia, S.C., and Raleigh, N.C., and the soils to the east and south of this line, as a rule, need

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potash, especially when planted to cotton or tobacco. West and north of this line, we do not recommend the use of potash, except possibly on some fruits and on deep sandy lands where cotton tends to rust. If you do not live in the territory needing potash, it will pay you to leave it out entirely in buying fertilizers.

For the man who studies his soil and crop needs and then knows what he is buying, fertilizers will pay well this year. In fact, under such conditions we advise that they be used liberally.—The Progressive Farmer.

### LETTER FROM FRANCE.

Jeff Lyles and Volney Burnett Write to Sister and Mother.

Following is a letter received from Volney Burnett, who is now in France. Mr. Burnett will be remembered by many people in this county as having been a high school student. His folks are now living in Idaho and he was drafted from there. The letter follows:

"Lanty, France, December 1 1918.  
"Mr. and Mr. O. P. Burnett, Buhl Idaho.

"Dear Father and Mother: Will write you again as we have a candle to make a little light tonight.

"Haven't been doing very much today and won't have much tomorrow, except have inspection. That doesn't last very long but it takes quite a little bit of rubbing and cleaning on our guns and clothes. It's so rainy and muddy we can't keep our clothes looking very well especially our shoes and our leggings.

"Got two letters from you a few days ago and was mighty glad to hear from you. Hadn't had any mail for a long time.

"I have written you lots of letters since I changed my address to Co. B, 307th Inf. Doesn't seem like you get any of them. Sometimes it's mighty hard for us to get hold of writing paper.

"Pearl said that Virgil Ford died over here with the pneumonia. That's too bad. The weather is enough to give anyone pneumonia without they are mighty stout.

"Dad is making more money than I am if he gets \$6 per day. I bought three eggs from a French lady and took them in the next door and had them fried and got a piece of bread. So you see I had quite a feed yesterday for supper.

"You were asking me if I wanted any money. Would rather have something to buy. Had a pay day this week. Have had three pay days since I have been over here. Have about \$80 in this awful French money. Don't look good to me. Would like to see an American twenty and see if I could recognize it.

"Haven't received any papers yet. There is so much mail and it is so far. Gladys wrote me about Cornell being wounded. But didn't seem to know how bad. Herman Campbell is wounded. I haven't seen a single boy over here that I knew back home except the boys that I knew in camp. The last time our company was filled up we got several Tennessee boys.

"Companies are beginning to bite so I will have to scratch awhile. I'm all OK except a bad cold. Hope you are both well.

With love,  
Volney C. Burnett.

The following letter was received a short time ago by Mrs. E. W. Grissom, sister of the writer, Jeff Lyles. Mr. Lyles being known to many in this county, his letter will prove of real interest:

"Field Hospital No. 3, A. E. F.,  
"Somewhere in Germany, Dec. 21, '18.  
"Dear Sister: Your letter of Oct. 23rd reached me today and was certainly glad to hear from you and to know you and the rest are well.

"This leaves me well and in good health.

"I expect to be sailing for the States soon.  
"Read the letter, Jesse wrote home and that Dad had put in the paper; it was real good, also read one written by a White Co. boy, England, he hasn't seen any war. He should be in France and Germany, then he would have to get used to something, he would have to get used to different money and an entirely different language. I got so I could speak French

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pretty good, then came to Germany, now will have to begin anew.

"I heard from Kate lately, also Bessie, Alice and mother.

"I saw Adas Verble not long ago, he was well. It seems good to see an old friend.

"I hear that R. L. is in England.

Well give every body my regards, and tell the children hello for me.

Hoping to see and hear from you again.

With love to all,  
Mech. Jeff L. Lyles.

## SUGAR SHOWED OUR BACKBONE

American Willingness to Give Up  
Luxury Demonstrated Na-  
tion's War Conscience.

### STAND WITH THE ALLIES.

By Reducing Consumption People of  
the United States Averted a  
Famine at Home in Spite  
of Low Supplies.

The fact that the people of the United States were able to reduce by more than one-half million tons their July, August, September and October consumption of sugar proves conclusively that their war conscience was thoroughly awakened and that the country as a whole stood ready to follow the injunctions of the Government.

Our normal consumption of sugar in the four-month period beginning with July has been 400,000 tons per month, a total of 1,600,000 for the quarter year.

In July, when our sugar stringency began to reach its height, consumption was reduced to 200,000 tons. In August only 325,000 tons went into distribution and in September only 275,000 tons. In October the distribution fell to 230,000 tons.

If the general public had failed to observe the injunctions of the Food Administration this country would have been in the throes of a sugar famine before the end of August. Our visible supplies were so low as to bring great anxiety to those familiar with the sugar situation. They feared that it would be absolutely impossible to reduce consumption to a point where sugar would no longer be a mere luxury in the American diet.

Few accomplishments of the Food Administration will stand forth so pre-dominantly as this reduced consumption of sugar. By it we have been able to bridge over the period of stringency until the new beet and Louisiana cane sugar crops were in sight.

Now the nation is in a position so that if we choose we may return to our normal home use of sugar, and Europe, with the release of ships to go far afield, can maintain its recent restricted rations. If, however, those nations are to increase their use of sugar very considerably it must be by our continued sharing with them through limiting our own consumption.

### "Y" HUTS IN FOREST.

In the pine forests of Alabama, Georgia, Tennessee and other states of the Southeast, where men are howling wood to be used in the war program, the Y. M. C. A. is locating huts and tents so that they may be of service to these loyal workers. In so doing the "Y" is building up the morale of the men who are adding the shipbuilding program.

### CARD OF THANKS.

We hereby extend our most sincere and heartfelt thanks to those kind friends and neighbors who assisted us during the sickness and death of our dear mother.

Mr. and Mrs. O. B. Pemberton.

## MEATS

I handle fresh and salt  
meats and vegetables  
and can furnish you on  
short notice.

## LUNCHES

and hot meals while  
you wait—the "wait"  
will be short and the  
eats long. Our soup is  
extra fine.

F. A. LOSHBOUGH

Roosevelt day was observed in several of the churches here Sunday.

If you want to sell or buy a farm, see John Q. Wyatt, Crossville, Tenn., Phone 7, Box 96. 11-27-17.

Ensign Alva S. Potter arrived home Saturday from Norfolk, Va., on a furlough of ten days. His numerous friends are glad to have him home for even that short stay.

Straight salary of \$35.00 per week for man or woman with rig to introduce Eureka Poultry Mixture. Six months contract. Eureka Mfg. Co., East St. Louis, Ill.

WANTED—Six good tie makers. Good timber, good prices. Pay every Sat. See James D. Brown on the Dug Burnett farm. 2-6-17.

Wanted—a woman to do general housework for small family. Will pay good wages. Call or address John Wightman, Hickman Hill.

There will be a pie supper Saturday night, Feb. 22nd, at Hales Chapel, proceeds to go Rev. Cooile.

For drilling wells see or write J. H. Graham, Crossville, Tenn. 6-6-17.

I have at last found a good man to do watch and jewelry repair work and can now handle any work that may be offered. Prices are higher than formerly, but that is expected. I must pay for all work done by the first of the month and for that reason must require a depo it when the work is left. When you get the finished work everything will be made right. We feel that we will be able to turn out the finished work in a shorter time than ever before. S. C. Bishop.

Lieut. Carl Brightspeer, of Chattanooga, was a guest at the Albertson home last week.

Miss Winifred Loshbough was home from her teaching work at Livingston for the week-end.

Miss Beryl Loshbough arrived from Michigan last week. She has had influenza and came home for a rest of several weeks.

At the Chronicle office library paste in 8 and 16 ounce jars, having double water well and brush.

Leonard Potter has recently received a letter from his son, Lincoln Potter, who has been with the colors overseas for over a year. The young man is now a part of the American guard on the Rhine. He says it is a fine country, but has that longing for home that is common with all our boys over there.

### Library paste at the Chronicle office.

For Sale—One two-year-old in June red heifer, will be fresh about April 1, bred to Noah Hyder's red poll bull; animal fat enough for beef now. Also one heifer calf, year old in March, in good fix. Call and see them. S. C. Bishop.

Sunday afternoon Rev. O. B. Rector said the words that made Miss Corda Hamby, daughter of Deck Hamby, and Mr. Ray Farmer, husband and wife. The ceremony was held in the T. M. Rector restaurant. The young people are from the Hebertsburg neighborhood and are highly respected.

WANTED—at the Chronicle office: A lot of clean, cotton rags in large sized pieces; no very small pieces or strings can be used. We will pay 6 cents a pound for the right kind. All that is necessary is for them to be reasonably clean and in pieces large enough for wiping machinery, as that is what we use them for. Will buy almost any quantity.

A letter from B. D. Lemert, Harrisburg, Mo., states that he is engaged in general farming. He also handles a few sheep and hogs and incidentally will put upon the market a high grade of maple syrup with the coming of spring.

We learn that Corp. Nathan Lemert hopes to arrive in the United States from France about March 1.

No pen surpasses the WATERMAN, sold at the Chronicle office. If you never used a WATERMAN it is likely you do not know what a really good and reliable fountain pen is. They are all guaranteed.

J. W. Laminack has recently received a letter from his son, John D. Laminack, who is with the colors in France. The young man is well and is working in the postoffice and express department of the army. Like most of our boys he is now anxious to get home since the struggle is over and peace assured.

Rev. G. S. Butler was over from Pleasant Hill Sunday and preached in the Congregational church. Rev. Butler will leave next week to take up the pastoral work for the Congregational church at Demorest, Ga. He expects to launch a movement looking to the building of a \$3,000 parsonage there. For some years Dr. Butler has been on the board of trustees of the college at Demorest and has done excellent work in several positions to which he was chosen by the board.

Mr. and Mrs. C. B. Hayes were gladened Monday by the arrival of a new baby boy. Mrs. Hayes has been here from Nashville visiting her parents, Mr. and Mrs. G. A. Hasley, for some weeks.

Miss Alice Jernigan, who has been teaching at Ozona, has returned home, her school having closed last week.

J. E. Rich was here during court, from Marion county, where he is running a sawmill and lumber business thirty miles from Chattanooga.

Crane's stationery by the quire and envelopes by the bunch at the Chronicle office. Nothing made better than Crane's.